

Activity 5

The Changing Geography of Your Community

Think About It

Date

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- How would you be able to decide if the pieces of a torn up newspaper all came from the same page?



WHAT DO YOU THINK?

Activity 5

The Changing Geography of Your Community

Digging Deeper

Pages G110-116

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Learning Objective: In writing, SWBAT explain evidence that supports the theory of continental drift using academic language.

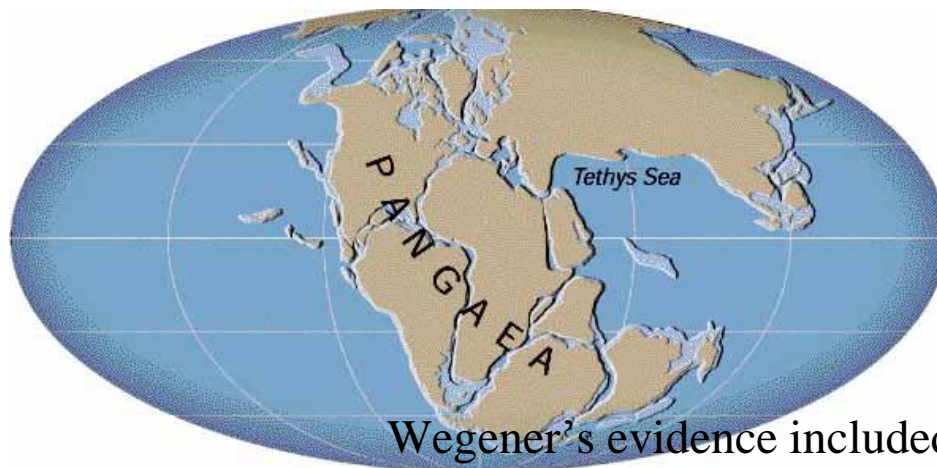
Alfred Wegener

German geoscientist who suggested in 1912 that all the continents were joined together some time in the past

http://www.classzone.com/books/earth_science/terc/content/visualizations/es0806/es0806page01.cfm?chapter_no=visualization

Pangaea

a large landmass made up of all the continents

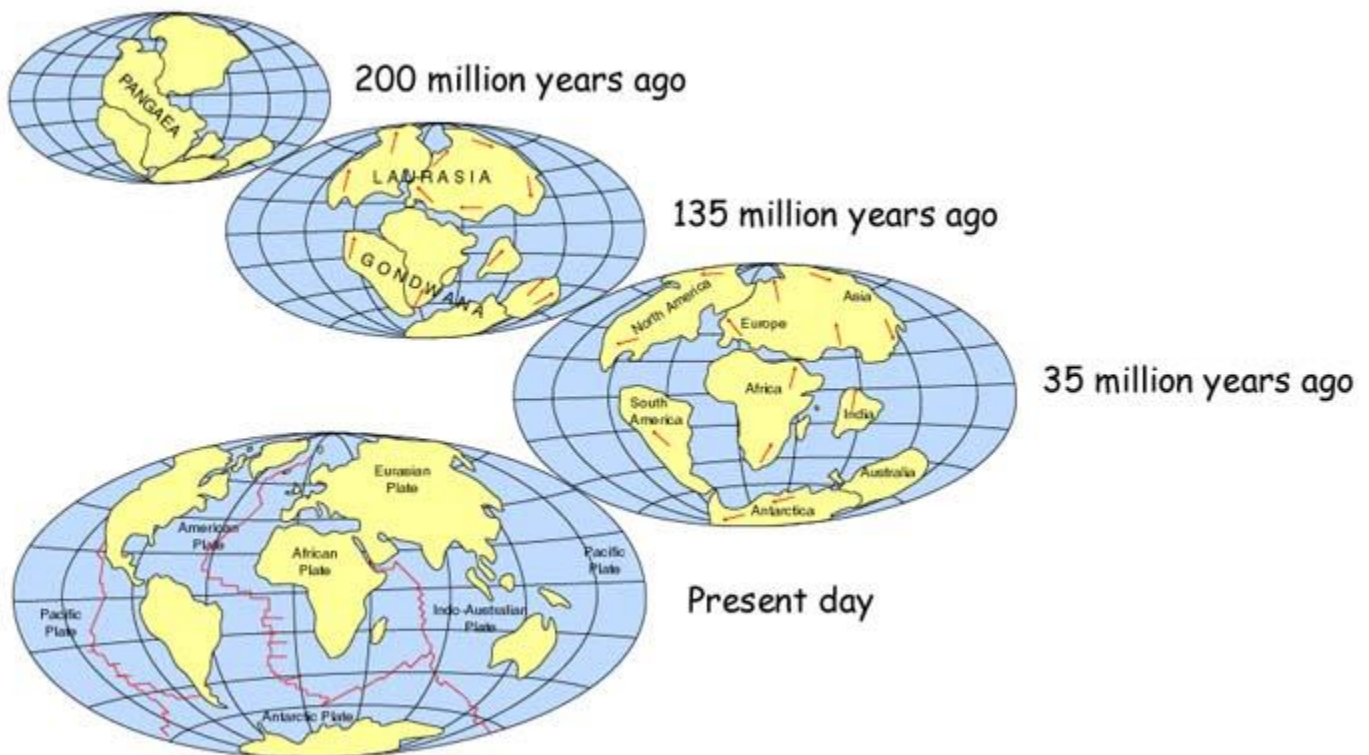


Wegener's evidence included:

It began to break up about 200 million years ago

Continental drift

the theory that the continents have moved over time to their current locations



Wegener's idea
rejected

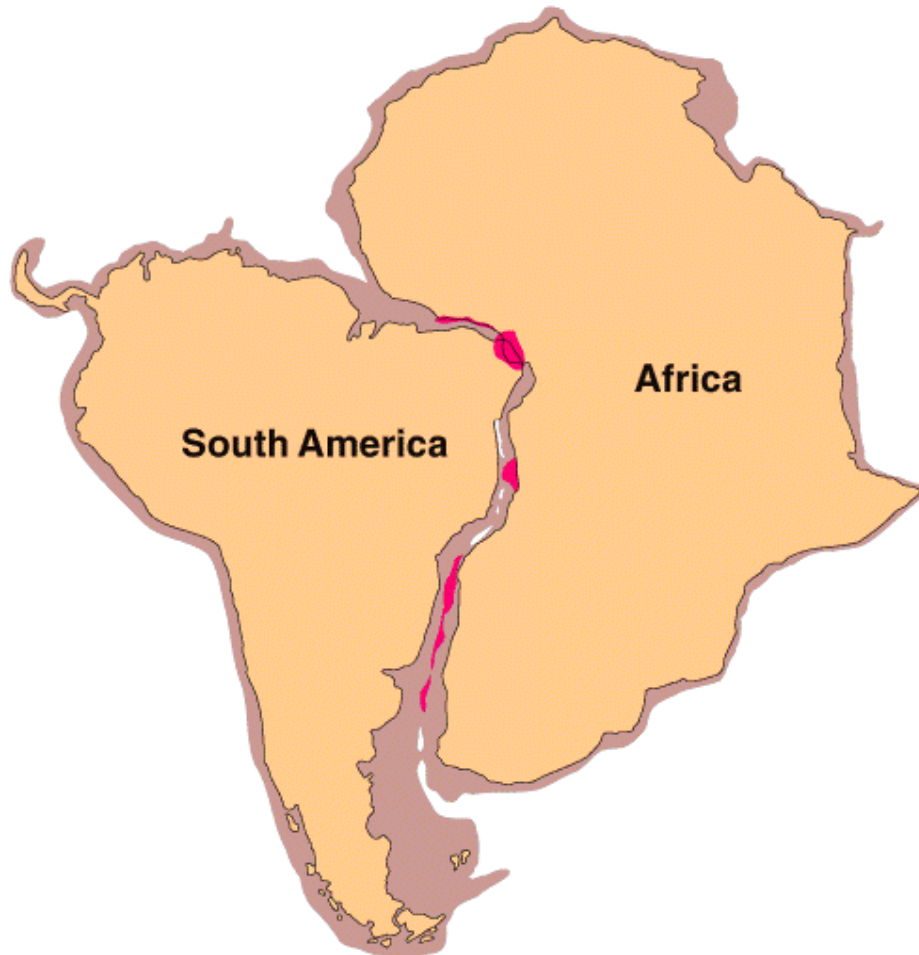
he could not explain how the
continents moved

Wegener's evidence

- puzzle-fit of continents
- fossils
- climate clues
- rock clues

Puzzle fit

the continents fit together like pieces of a puzzle

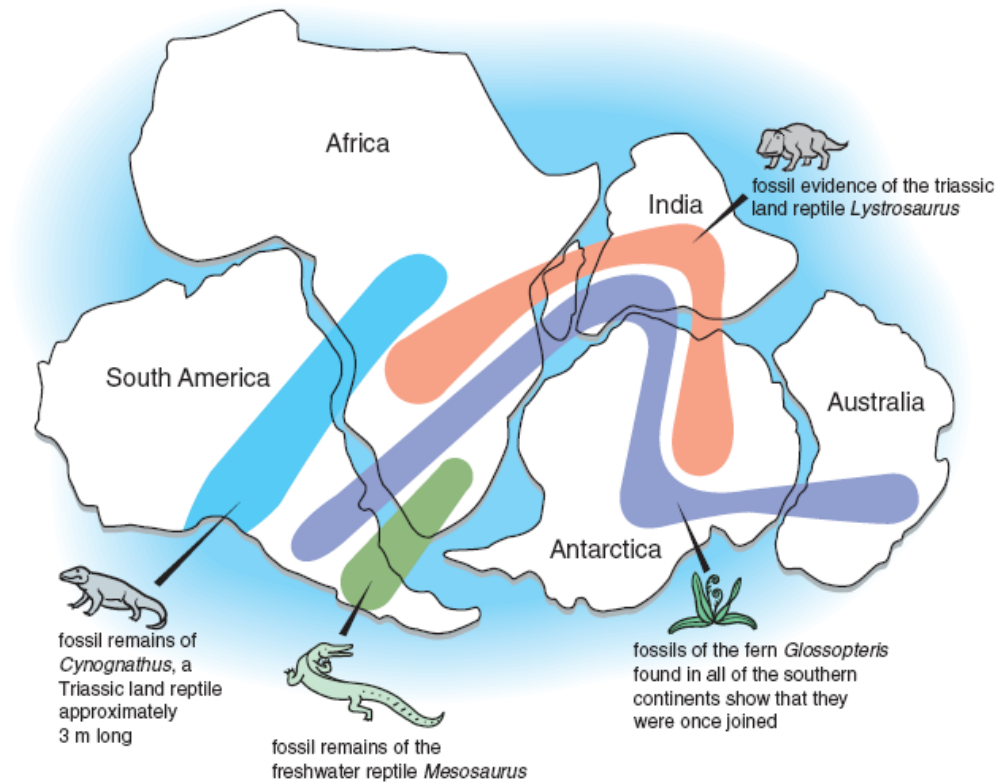


Fossil evidence

fossils of the freshwater reptile *Mesosaurus* were found in South America and Africa

Fossils of the fern *Glossopteris* were found in Australia, Antarctica, India, South America and Africa

This suggests these continents
were joined together in the past

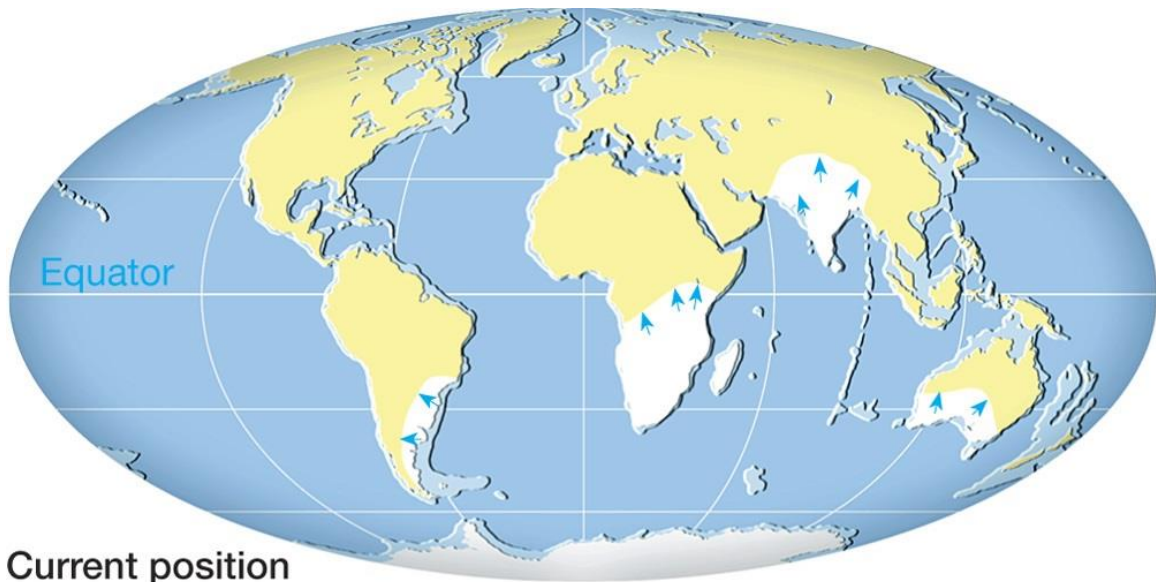


Climate clues

deep glacial scratches have been
found in rocks of South America,
Africa, Australia and India



This suggests these continents were once joined together near Antarctica and had cold climates



Fossils of warm-weather plants were found on the island of Spitsbergen in the Arctic Ocean



This suggests it was once located near the equator and had a warm climate

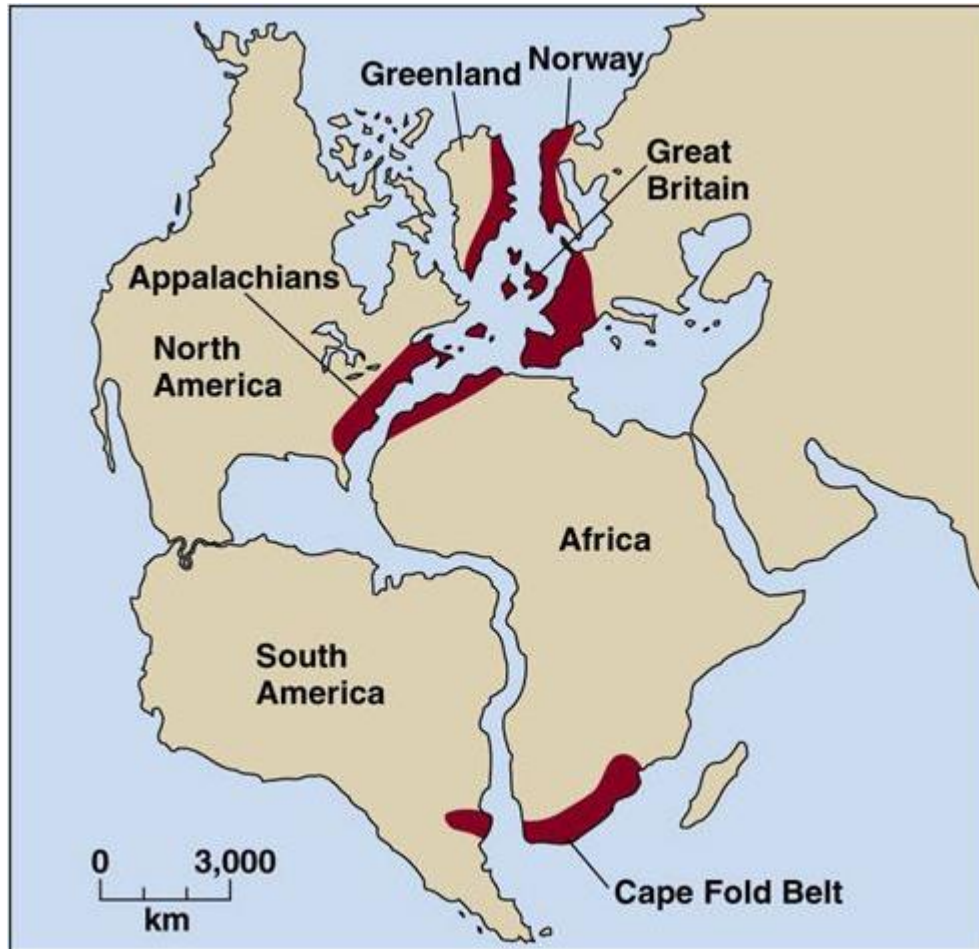
Rock evidence

similar rock structures are found on different continents

Parts of the Appalachian Mountains of the eastern United States are similar to those found in Greenland and western Europe

Rock structures found in eastern South American and western Africa are also similar

This suggests these continents were joined together in the past

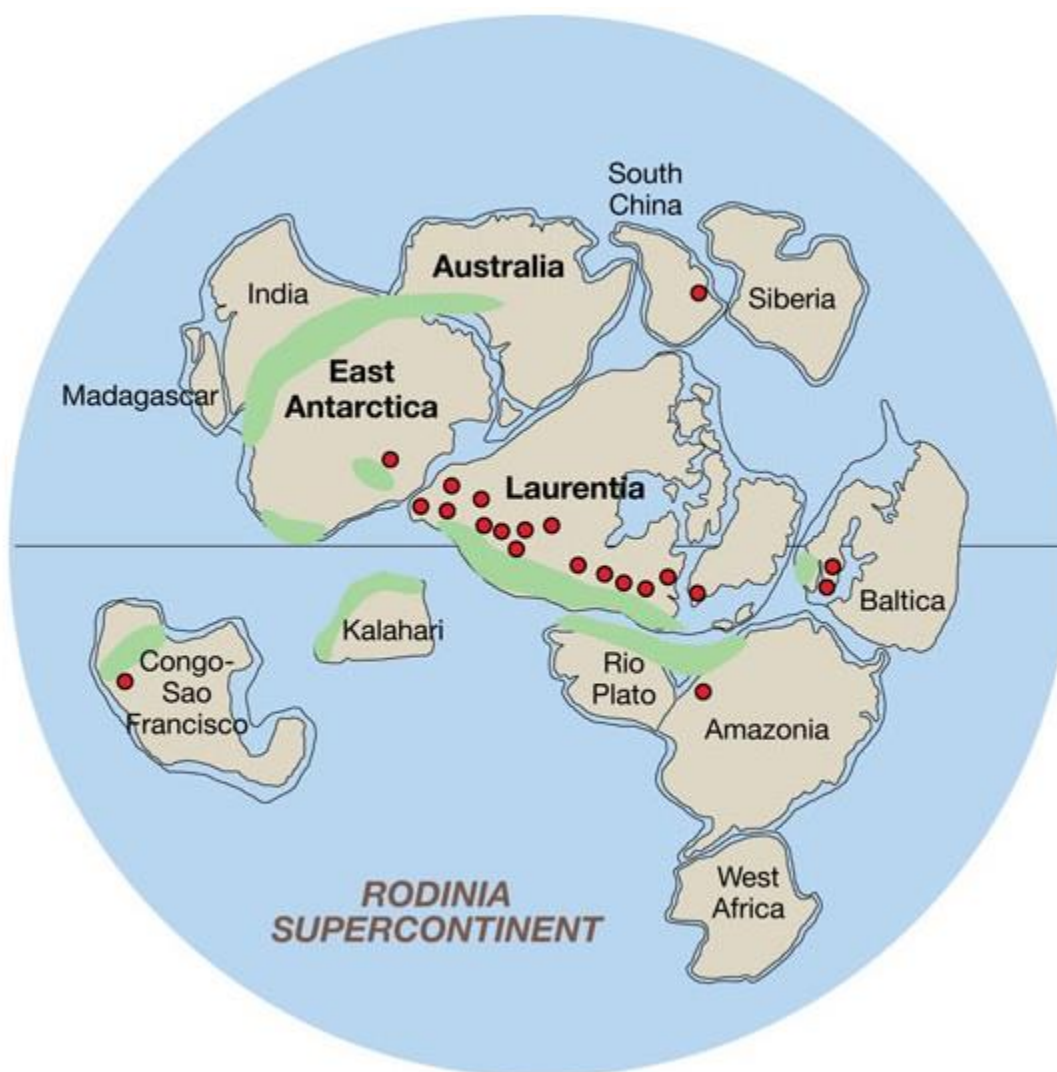


Supercontinent

a large landmass made of all Earth's continents

Examples of
supercontinents

- Rodinia
- Pangaea



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Check Your Understanding

Date

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1. How did Suess explain the formation of mountain ranges?

2. What evidence was found to contradict Suess's proposal that the Earth is cooling and shrinking?

3. What evidence did Wegener use to support his theory of the breakup of Pangea?

4. How did Wegener propose that the continents move horizontally?

5. How was fossil evidence used to reconstruct Pangea?